

MAFAC Recreational Fishing Working Group (RFWG)
SSMC3 – 14836, 3:00 – 4:15 pm, August 3, 2011
Meeting Summary

Participants

RFWG: Polly Fischer, Bob Fletcher, Bruce Freeman, Michael Kennedy, Craig Severance, Rad Thrasher, Bob Zales

MAFAC members: Ken Franke, Patty Doerr, Phil Dyskow

NOAA Fisheries Regional Fisheries Staff: Melissa Anderson, Ken Brendan, Jennifer Cudney, Hongguang Ma, Marty Golden, Charles Villafana, Scott Ward, Bob Williams, Lisa Welch

NOAA Fisheries HQ Staff: Gordon Colvin, Forbes Darby, Heidi Lovett, Sam Rauch, Joshua Stoll

Welcome: Forbes Darby led the welcome, roll call, and reviewed the meeting agenda.

MRIP and Catch Estimation Update -Gordon Colvin (See presentation slides)

A new method for estimating catch from the angler intercept is needed. Surveys conducted by NMFS are generally sample-based surveys that include 2 parts. Catch is estimated from fishermen when intercepted at the dock. Effort – the number of fishing trips taken – has been obtained historically from telephone surveys.

We might be able to develop census based surveys in the future for some fisheries, but mostly, it will be sample-based surveys in the future.

Catch data feed into a continuous cycle of data collection, assessment, setting of targets and making regulations.

MRIP was created in 2007 to address National Research Council (NRC) recommendations from 2006, and were folded into the 2006 Magnuson-Stevens Act (MSA) Reauthorization. The effort is also to build stakeholder confidence.

One major concern about estimating catch was that it was not matched with the sampling methods used. Shore side sampling methods emphasize maximum angler intercepts at the expense of statistical rigor. The NRC wanted us to address the way we did estimates and the way we collected the data.

Top priority of MRIP is to address the potential for bias. The potential for bias is the result of unaccounted factors and untested assumptions. Bias makes estimates less accurate. When bias is eliminated, accuracy of the estimate improves. Thus, we worked to align the formulas we use to produce catch estimates with the way in which we collect catch data (the sampling method). We do not randomly sample anglers along the coast. What we use is a multi-stage cluster sampling method.

This method selects fishing site-days as the primary sampling units; within a site-day, samplers select entities to be sampled within separate units or clusters – sites, boats, anglers, and landed fish. The new MRIP estimation method is the statistically correct way in which to calculate estimates from a multi-stage cluster sample.

The new method also addresses potential sources of bias that result from the design of the field data collection in the intercept survey. We select and sample a site-day that is specific to state, month, day type (weekday or weekend) and mode of fishing (shore, private boat, for-hire vessel). Currently, after 2 hours, if there is little fishing activity, samplers are allowed to move to an alternative site. The statistical selection probability of their assigned sites is known, but not of the alternate sites. Samplers are also permitted to interview anglers fishing in alternate modes at the primary assigned site. Since the selection probabilities of alternate modes and alternate sites are not known, and are likely to differ from the assigned site, their use creates a potential source of bias. When the analyses are done, and we know alternative sites were chosen, the formulas now are weighted to reflect the selection probabilities of the alternate sites. In the future, we will be dropping the alternative mode data chosen at a sampler's discretion.

The current sample design also collects data during peak activity periods at assigned sites and assumes that activity during those periods is representative of a 24-hour day, introducing another source of potential bias. This is addressed in the new method by determining fishing activity levels for 24-hour periods from telephone survey data and re-weighting the peak activity data to reflect actual fishing activity for the entire day.

A Statistical Team designed the changes (Team includes three internal staff and two external people, Dr. Jay Breidt (NRC Panel Member) and Dr. Jean Opsomer (Peer Review Panel), both from Colorado State Univ.). And, the new estimation and intercept survey design has been subjected to independent peer review.

We will be applying the new estimation method to data collected from 2004 forward. The method improves accuracy by removing potential biases from the calculation of catch estimates. The changes to individual catch estimates calculated using the improved MRIP methodology will be significant. Changes in catch estimates are likely to affect stock assessment results and management actions.

While we have been working on new catch estimation methodology, we have also been testing new protocols for gathering catch data through our shore-side intercept survey. A pilot project was conducted in North Carolina to compare the old and new intercept survey methodology. Draft report is due at end of August.

The planning horizon – to apply the new intercept survey protocols to the Atlantic and Gulf Coasts beginning as early as March 2012.

We will also be applying new methods to the Pacific Coast and other survey efforts. MRIP has approved/funded new project proposals from States of Washington and Oregon to pilot test survey improvements recommended by our project team to address potential sources of bias last year. A workshop was conducted to review efforts in California last month. California is looking forward to submitting proposals for pilot projects for FY2012. Hawaii and the Atlantic HMS surveys will be reviewed next year.

What's Next:

- Complete the New MRIP catch estimates for 2004-2011 and release updated estimates. There will be ongoing QA/QC review of methods, coding and programming and legacy data, and parallel evaluation of estimates produced.
- Improvement to the design of the Access Point Angler Intercept Survey
- Improving effort estimates (dual-frame mail/phone surveys, using the National Saltwater Angler Registry)
- Enhancing precision through increased sampling

Other MRIP Activities

- Lessons learned from Gulf for-hire pilot
- Improving timelines and capability for in-season management

- Getting a handle on under-coverage bias from private access trips
- Planning an angler self-reporting program workshop
- Improving (potentially expanding) the Large Pelagic survey.

Key Takeaways

- New estimation methods will yield more accurate numbers with a known level of precision
- This is a fundamental improvement that allows for a range of future enhancements.
- Additional changes are underway to improve sampling methodology and address effort issues.

Questions/Discussion

Bruce Freeman– Can you please clarify what is happening for 2011, including what you will be doing with the registry?

Gordon -- right now the intercept survey has not changed and we can calculate it both unweighted (MRFSS) and weighted (MRIP). We can generate MRIP new estimates back to 2004. This allows Councils to continue to track trends.

To get a handle on effort, or the number of angler trips, MRFSS randomly selects coastal county households from a telephone list. This method is inefficient – very small number of those we call actually fish. And a potential bias is it doesn't cover people who may not be in the directories (e.g. may only have cell phone), and it does not sample folks outside coastal county households.

Now we are working primarily with state angler registries, or with the federal registry in Hawaii and Puerto Rico. There are also under-coverage issues with the state registries and with the Federal one. Recognizing this, adjustments need to be made.

Therefore, until we can build a complete set of angler registries, we will do dual frame sampling where we use a sampling frame other than just random digit dialing of coastal households. We have pilot tested dual frame telephone sampling using an angler registry list frame and the coastal household directory.

We have also piloted a dual frame that includes a telephone survey of an angler registry list frame and a mail survey of a universal residential address frame. Based on the pilot testing and review of test the results, we will be moving forward with this dual frame approach, a mail survey and phone survey from the state angler registry lists in an expanded pilot test in the four-state South Atlantic region in the fall of 2011. If successful, this method will be deployed for the Atlantic and Gulf coasts in 2012.

Dave Pecci, Bruce Freeman, Craig Severance, and Lee Blankenship – these four sat on a review group – along with Council members.

Saltwater Recreational Fisheries Initiative Update – Bob Williams

Bob apologized for Russ who is on an airplane and wishes he could attend.

Update:

- MRIP Catch Estimation Methodology and MRIP workshops on data timeliness and catch estimate.

- In March, also had workshop on bycatch and barotraumas workshop. There will likely be more similar workshops in Calendar year 2012. We'll keep you apprised, and hope you can attend.
- There is a 2011 Recreational Expenditure Field Survey ongoing (reported at the past webinar).
- Progress Report: A Growing Legacy progress report on Recreational Fisheries was released in May
- IN July – in house workshop on Marine Recreational & Commercial Fisheries Economic Data Analysis.
- Catch allocation engagement strategy and engagement with recreational fishermen are ongoing.

Next:

- Recreational Fish expenditure field surveys
- Improved marine recreational fish catch estimates
- AFS Recreational Fisheries Management Symposium – if you are at AFS, afternoon of Sept. 5, Labor Day.
- Recreational constituent economic gap analysis workshop - fall of this year. It will be external folks invited to help us assess gaps
- Recommendations to improve recreational data timeliness
- Other regional recreational bycatch and release mortality workshops

Now, we are working on taking action plan down to the regional level. General guidance – these regional plans should follow the format of the national Action Plan, but actions will be more specific to the region. We need your input. We realize not all the RFWG members have been engaged and we want to make sure you are, so we are slowing the process down, to ensure better engagement.

There will be 7 plans total – 6 regions and 1 for Atlantic HMS. We will be sending the current drafts to you in the next 2-3 weeks, and ask for your input over the following month. We hope to have final drafts by October.

Question/Discussion

Ken Franke – will there be a meeting on West Coast? Yes.

Forbes asked the group how best can RFWG be better engaged?

Ken Franke – I talked with Russ earlier about this. MAFAC's number one focus was to engage more on a regional level, led by the regional coordinators. The goal is to be more accomplishment oriented. Now it's time to be engaged, and get into the 'weeds' more. Target problem areas, provide feedback to NOAA staff – overall to improve communications.

Bob Williams: We heard that and we are moving forward on this.

Bruce Freeman: Somewhat dismayed that regional action plan was not shared with the RFWG Advisors.

Ken and Bob noted that we are trying to correct that. All will be receiving the draft versions for their review and input.

Craig Severance – The two of us from Hawaii have had three meetings with our coordinators, and we feel we have had good involvement. But we don't have representation from the Territories and Commonwealth. Also, I have thought we would be more engaged than we have been; we desire more opportunity to be engaged.

Ken noted that was a point well taken. That is what we hope the Action Agendas to lead on.